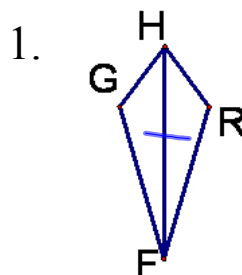


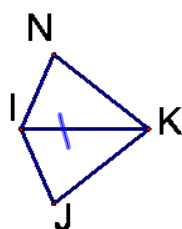
Given: picture  
 Conclusion:  $CD = CD$   
 Reason: Reflexive



Given: picture  
 Conclusion:  $HF = HF$   
 Reason: Reflexive

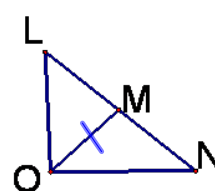
2.

Conclusion:  $IK = IK$   
 Reason: Reflexive



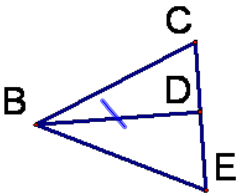
3.

Conclusion:  $OM = OM$   
 Reason: Reflexive



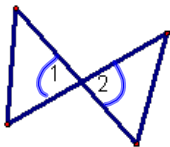
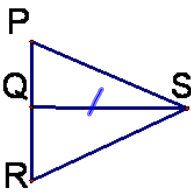
4.

Conclusion:  $BD = BD$   
Reason: Reflexive



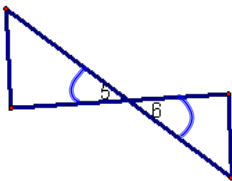
5.

Conclusion:  $QS = QS$   
Reason: Reflexive



Given: picture  
Conclusion:  $\angle 1 \cong \angle 2$   
Reason: Vertical  $\angle$ s are  $\cong$

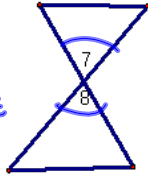
10.



Given: picture  
Conclusion:  $\angle 5 \cong \angle 6$   
Reason: Vertical  $\angle$ s are  $\cong$

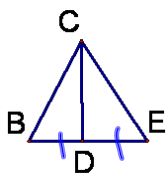
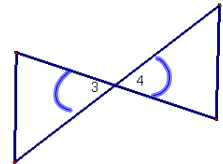
11.

Conclusion:  $\angle 7 \cong \angle 8$   
Reason: Vert  $\angle$ s are  $\cong$

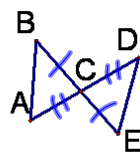


12.

Conclusion:  $\angle 3 \cong \angle 4$   
Reason: Vert  $\angle$ s are  $\cong$

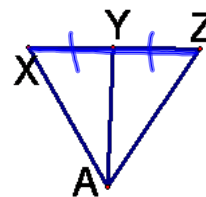


Given: D is the midpoint of  $\overline{BE}$   
Conclusion:  $\overline{BD} \cong \overline{DE}$   
Reason: Def. of midpoint



Given: C is the midpoint of  $\overline{BE}$   
and  $\overline{AD}$   
Conclusion #1:  $\overline{BC} \cong \overline{CE}$   
Conclusion #2:  $\overline{AC} \cong \overline{CD}$   
Reason: Def. of midpoint

16.



Given: Y is the midpoint of  $\overline{XZ}$   
Conclusion:  $\overline{XY} \cong \overline{YZ}$   
Reason: def of midpt.

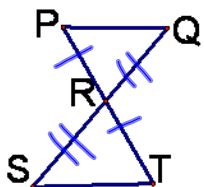
17.

Conclusion #1:  $PR = RT$

Conclusion #2:  $QR = RS$

Reason:

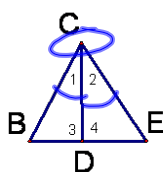
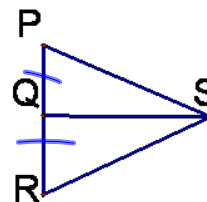
*def of midpt*



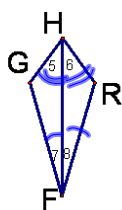
18.

Conclusion:  $QP = RQ$

Reason: *def of midpt*

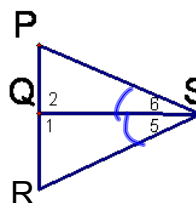


Given:  $\overline{CD}$  bisects  $\angle BCE$   
 Conclusion:  $\angle 1 \cong \angle 2$   
 Reason: def. of  $\angle$  bisector



Given:  $\overline{HF}$  bisects  $\angle GFR$  and  $\angle GHR$   
 Conclusion #1:  $\angle 5 \cong \angle 6$   
 Conclusion #2:  $\angle 7 \cong \angle 8$   
 Reason: def. of  $\angle$  bisector

22.



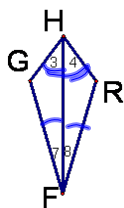
Given:  $\overline{QS}$  bisects  $\angle PSR$   
 Conclusion:  $\angle 5 \cong \angle 6$   
 Reason: def of  $\angle$  Bis

23.

Conclusion #1:  $\angle 7 \cong \angle 8$ 

Conclusion #2:  $\angle 3 \cong \angle 4$ 

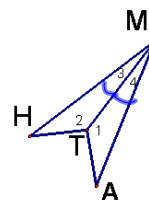
Reason:

def of  $\angle$  Bis.


24.

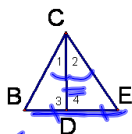
Conclusion :  $\angle 3 \cong \angle 4$ 

Reason:

def of  $\angle$  Bis.


For the following problems, state as many conclusions as possible and give the reasons for each conclusion.

28.

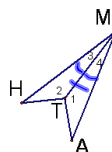

Given:  $\overline{CD}$  bisects  $\angle BCE$ ,  $D$  is the midpoint of  $\overline{BE}$ 

Conclusion #1:  $\angle 1 \cong \angle 2$  Reason: def of  $\angle$  bisector.

Conclusion #2:  $BD = DE$  Reason: def of midpt

Conclusion #3:  $CD = CD$  Reason: reflexive

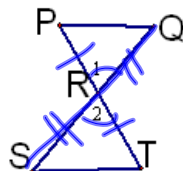
29.


Given:  $\overline{MT}$  bisects  $\angle HMA$ 

Conclusion #1:  $\angle 3 \cong \angle 4$  Reason: def of  $\angle$  bis.

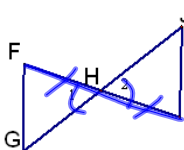
Conclusion #2:  $MT = MT$  Reason: Reflexive

30.



Given: R is the midpoint of  $\overline{QS}$  and  $\overline{PT}$   
 Conclusion#1:  $PR = RT$  Reason:  $\checkmark$  def of midpt  
 Conclusion#2:  $SR = QR$  Reason: " " " "  
 Conclusion#3:  $\angle 1 \cong \angle 2$  Reason:  $\checkmark$  vert.  $\angle$ s are  $\cong$

31.



HW  
32-37

Given: H is the midpoint of  $\overline{FI}$   
 Conclusion#1:  $FH = HI$  Reason:  $\checkmark$  def of midpt  
 Conclusion#2:  $\angle 1 \cong \angle 2$  Reason:  $\checkmark$  vert.  $\angle$ s are  $\cong$